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## PATENT ABSTRACTS OF JAPAN

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## (54) DISTRIBUTED ARBITRATION DEVICE

(57) Abstract:

PURPOSE: To realize fair arbitration based on the distributed control system with simple hardware by outputting a bus acquisition signal to a bus at the time of reception of a coincidence signal from a successive comparator to output a bus use permission signal to a bus use device.

CONSTITUTION: A successive comparator 8 compares the value of a priority level signal 3 subjected to AND operation with the value of a counter 9 bit by bit in order from the most significant bit and stops to drive an open collector buffer 10 at the time of detecting the disaccord. The successive comparator 8 informs a control circuit 7 of the coincidence by a coincidence signal 6 when confirming the coincidence up to the least significant bit, and this control circuit 7 validates a bus acquisition signal 4. When the acquisition signal 4 is validated, the value of the counter 9 is counted up by '1' to change the priority level of the bus

use device. Thus, bus use devices can fairly use the bus, and the circuit scale is very reduced.

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